

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

✓ On page 2, please amend the paragraph starting on line 14 as follows:

A²

Using a proxy server, however, requires configuring the client by storing the proxy server Internet protocol (IP) address in the client browser. The client browser sends packets to the proxy server by placing the proxy server IP address in the destination field of the ~~packet~~packet. Configuring a client browser is cumbersome because someone must set the IP address of the proxy server in the client browser. Setting the IP address may be difficult, particularly for the uninitiated. Consequently, proxy servers are generally only used in settings having someone with an understanding of how to store the proxy server IP address in the client browser. For example, proxy servers are sometimes used when there is a network administrator who can configure each browser with the IP address of a proxy server.

✓ On page 8, please amend the paragraph starting on line 3 as follows:

A³

If router 16 determines in step 92 that the packet is not a SYN packet, router 16 simply stores the proxy server IP address in the destination field (step 98) and forwards the packet to the proxy server 14 (step 100). Thus, for packets other than SYN packets, router 16 simply writes the IP address of the proxy server 14 in the destination field of the packet to route it to proxy server 14.

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✓ On page 9, please amend the paragraph starting on line 27 as follows:

Fig. 8 is a block diagram illustrating the table created by proxy server 14 in step 136 of Fig. 7. Proxy server 14 uses table 148 to maintain correspondence between clients and respective origin servers the clients are requesting information from. Table 148 comprises a client IP address column 150, a client port column 152, a destination IP address column 154, and a destination port column 156. After the initial connections between client 22 and proxy server 14 and between proxy server 14 and origin server 10 are set up, proxy server 14 uses table 148 when receiving packets from origin server 10 that are destined for client 22. More particularly, for packets from origin server 10, proxy server 14 matches the origin server IP address from the source field of the packet with the table entry having the same origin server IP address in destination IP address column 154, and sends the information to the corresponding client IP address and client port from client IP address column 150 and client port column ~~150~~152, respectively.

✓ On page 10, please amend the paragraph starting on line 11 as follows:

Fig. 9 illustrates the process performed by proxy server 14 when a request packet is received from client 22. Proxy server 14 receives the request packet (step 160), and determines whether the requested information is stored in cache 118 (step 162). If the information is stored in cache 118, proxy server 14 retrieves the information (step 164) and forwards it to the client via router 16 (step ~~164~~174). If the requested information is not stored in cache 118, however, proxy server 14 must request the information from origin server 10.

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[On page 11, please amend the paragraph starting on line 13 as follows:]

AB

Proxy server 14 responds to the SYN packet by storing the client IP address and origin server address in a table, and sends a SYN packet to origin server 10 to set up a connection. If origin server 10 sends back an acknowledgment packet, which completes connection setup between origin server 10 and proxy server 14, then proxy server 14 sends an acknowledgment packet having fields 184 to client 22. Proxy server 14 prepares the acknowledgment packet by writing the client IP address in the destination field, the client port XX ~~having fields 184~~ in the destination port field, the origin server IP address in the source field, and 80 in the source port field. The record route option field is undefined. This packet is transmitted to router 16, which forwards the packet to client 22. This completes connection setup between client 22 and proxy server 14.

[On page 12, please amend the paragraph starting on line 14 as follows:]

AM

Fig. 13 illustrates the process performed when proxy server 14 receives a packet from origin server 10, in the form of a packet having fields 216. Proxy server 14 looks up the client IP address in table 148 corresponding to the origin server IP address (step 260), and creates a packet having fields 218, which include the client IP address in the destination field and the ~~proxy~~origin server IP address in the source field (step 262). Proxy server 14 forwards the packet to router 16. Router 16 receives packet 218 from proxy server 14, and forwards the packet to client 22.

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